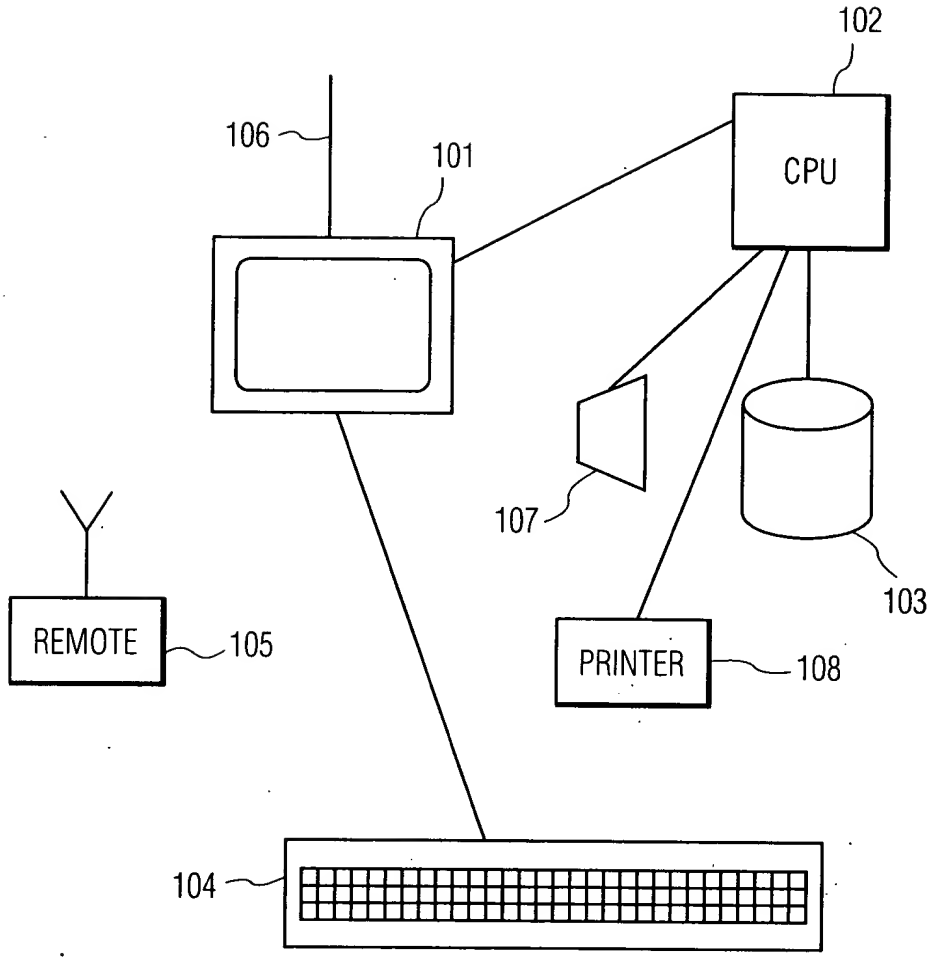


FIG. 1

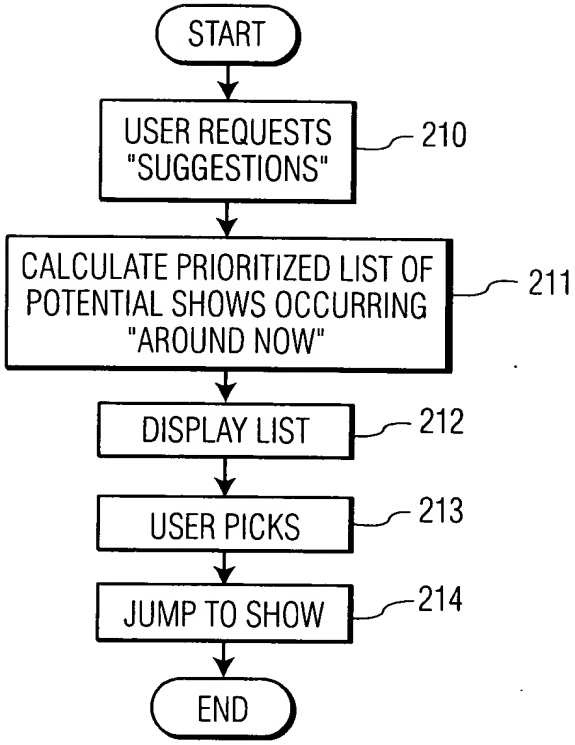


FIG. 2A

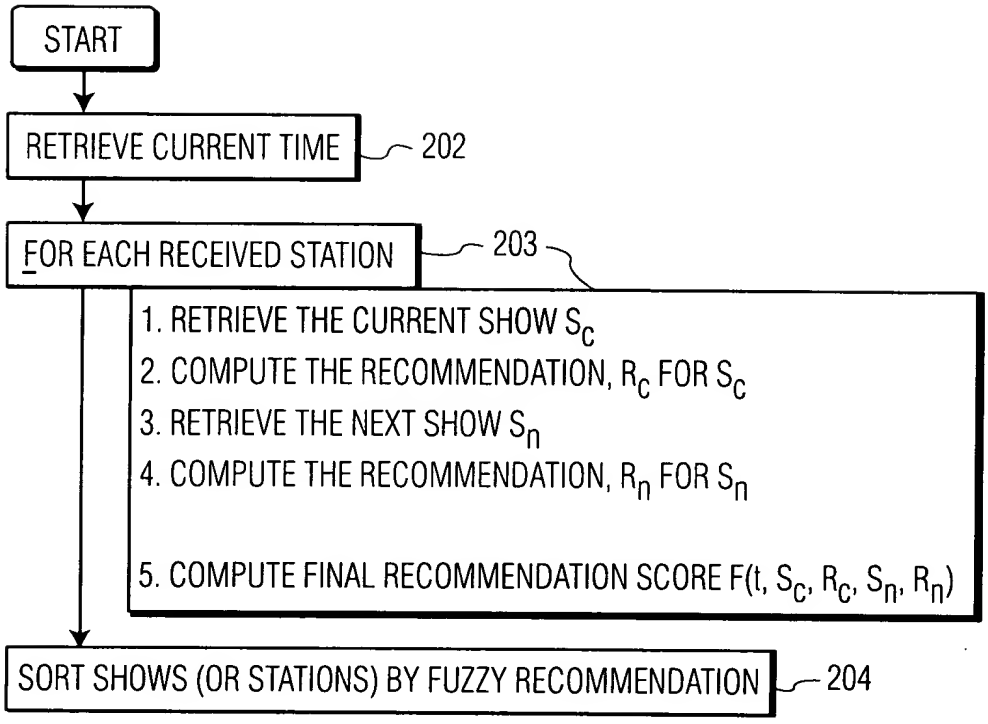


FIG. 2B

EP 0 954 906 / 06 04 05 01

1. PRESIDENTIAL DEBATE (STARTS IN 5 MINS), ABC-7
2. BASEBALL PLAYOFFS, YANKEES V. MARINERS (STARTED AT 8), NBC-4
3. X-FILES (STARTS IN 5 MINS), FX-63
4. COPS (STARTS IN 5 MINS), KTBC-64
5. DARK ANGEL (STARTS IN 5 MINS), FOX-5

FIG. 3A

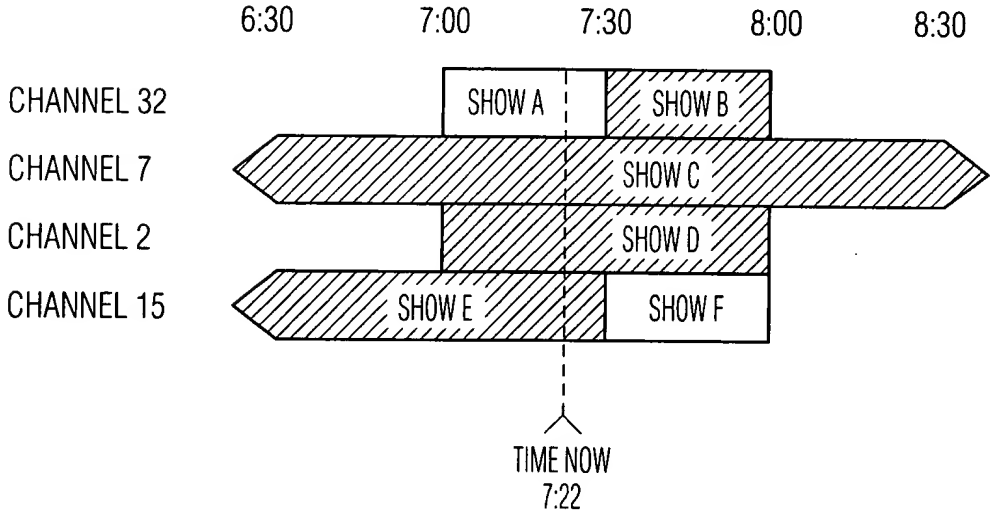


FIG. 3B

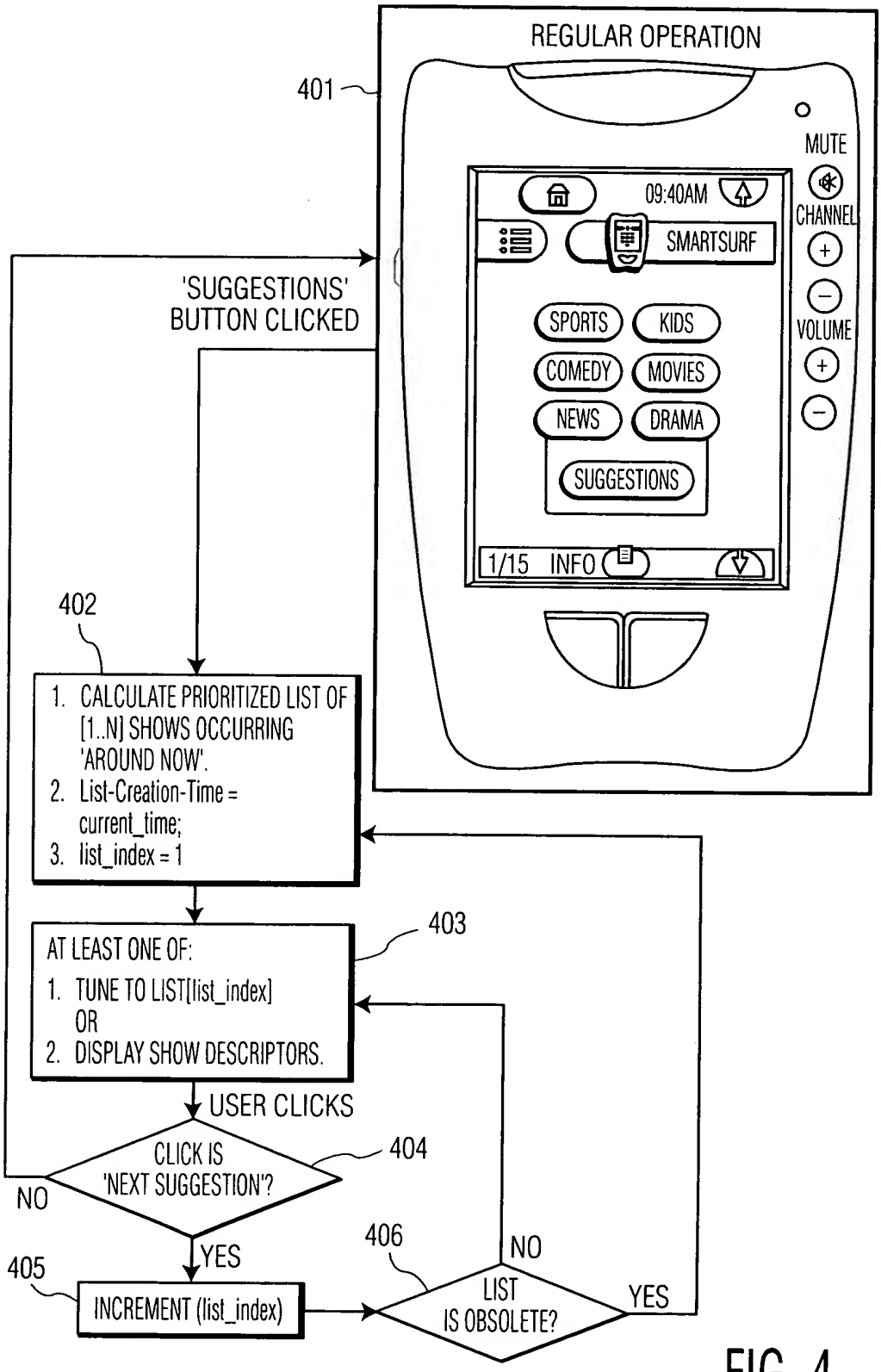

REGULAR OPERATION
401
MUTE
09:40AM
CHANNEL
SMARTSURF
'SUGGESTIONS'
BUTTON CLICKED
SPORTS
KIDS
COMEDY
MOVIES
NEWS
DRAMA
VOLUME
SUGGESTIONS
1/15 INFO
402
1. CALCULATE PRIORITIZED LIST OF [1..N] SHOWS OCCURRING 'AROUND NOW'.
2. List-Creation-Time = current_time;
3. list_index = 1
403
AT LEAST ONE OF:
1. TUNE TO LIST[list_index] OR
2. DISPLAY SHOW DESCRIPTORS.
USER CLICKS
CLICK IS 'NEXT SUGGESTION'?
404
NO
YES
405
INCREMENT (list_index)
406
LIST IS OBSOLETE?
NO
YES

FIG. 4

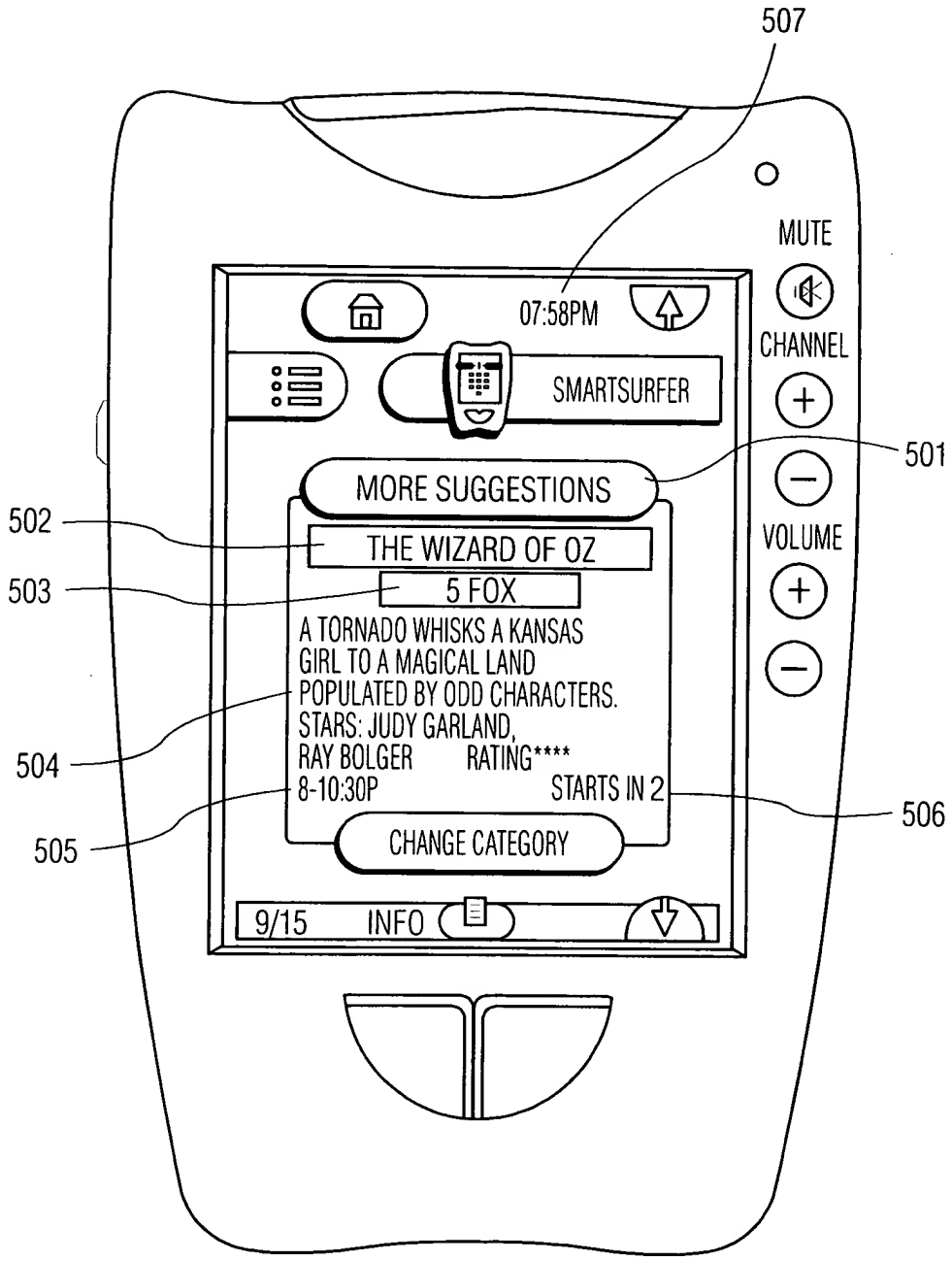

507
MUTE
07:58PM
CHANNEL
SMARTSURFER
501
MORE SUGGESTIONS
502
THE WIZARD OF OZ
503
5 FOX
VOLUME
A TORNADO WHISKS A KANSAS
GIRL TO A MAGICAL LAND
POPULATED BY ODD CHARACTERS.
STARS: JUDY GARLAND,
504
RAY BOLGER RATING****
8-10:30P
STARTS IN 2
506
505
CHANGE CATEGORY
9/15 INFO

FIG. 5

$$w = f(\text{current_time}, \text{start_time}, \text{end_time}, \text{length}) \quad (1)$$

$$\text{final_recommendation} = w^{*}\ \text{nominal_recommendation}(\ \text{personal_profile}\ ) \quad (2)$$

$$\text{nominal_recommendation}(\text{user_selected_category}) = \begin{cases} 1 & \text{if user_selected_category included in event's descriptive categories} \\ 0 & \text{otherwise} \end{cases} \quad (3)$$

$$w = f(\text{current_time}, \text{start_time}, \text{end_time}) = \begin{cases} 1 & \text{if } \left\{ \begin{array}{c} \left(\text{current_time} > \text{start_time} - \text{waiting_threshold_time} \right) \\ \text{and} \\ \left(\text{current_time} < \text{end_time} - \text{undesirable_show_ending_threshold_time} \right) \end{array} \right. \\ 0 & \text{otherwise} \end{cases} \quad (4)$$

$$w = f(\text{current_time}, \text{start_time}, \text{end_time}) = \begin{cases} 1 - \dfrac{\text{start_time} - \text{current_time}}{\text{start_time} - \text{waiting_threshold_time}} & \text{if } \left(\begin{array}{c} \text{current_time} > \text{waiting_threshold_time} \\ \wedge\ \text{current_time} \le \text{start_time} \end{array} \right) \\ 1 - \dfrac{\text{current_time} - \text{start_time}\ \wedge}{\text{end_time} - \text{start_time}} & \text{if } \left(\begin{array}{c} \text{current_time} > \text{start_time}\ \wedge \\ \text{current_time} < \text{end_time} \end{array} \right) \\ 0 & \text{if } \left(\begin{array}{c} \text{current_time} \le \text{waiting_threshold_time} \\ \vee\ \text{current_time} \ge \text{end_time} \end{array} \right) \end{cases} \quad (5)$$

$$\text{final_recommendation_function} \left(\begin{array}{c} \text{current_time}, \\ \text{start_time}, \\ \text{length}, \\ \text{nominal_recommendation} \end{array} \right) \quad (6)$$

FIG. 6

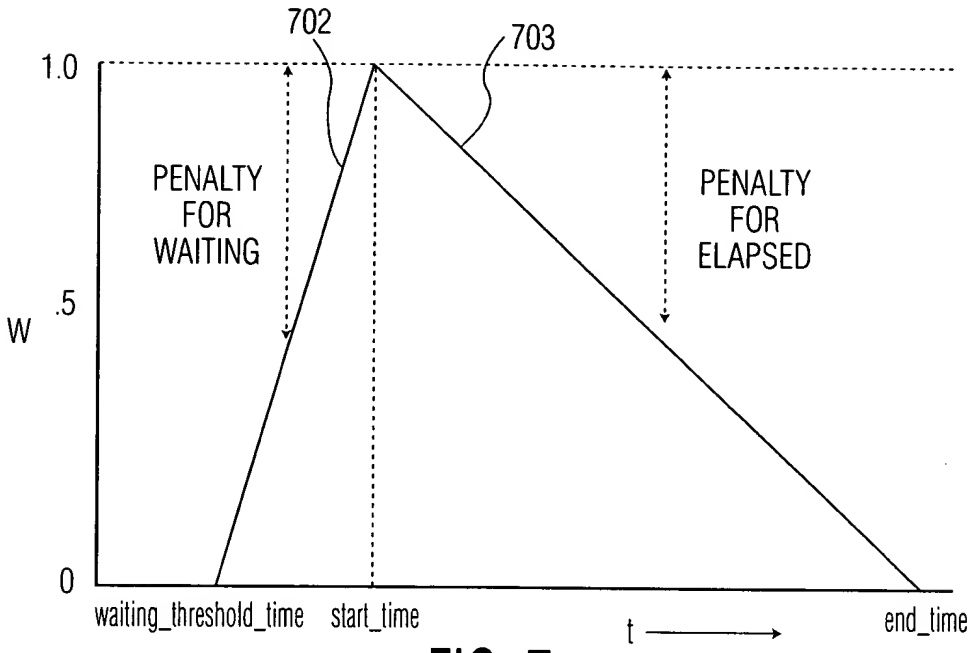


FIG. 7

FIG. 8A

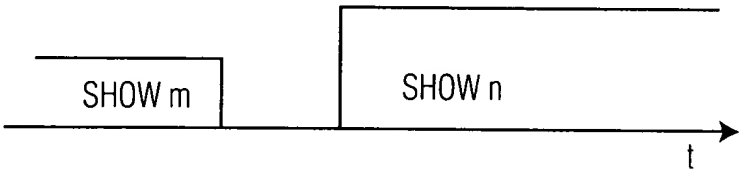


FIG. 8B

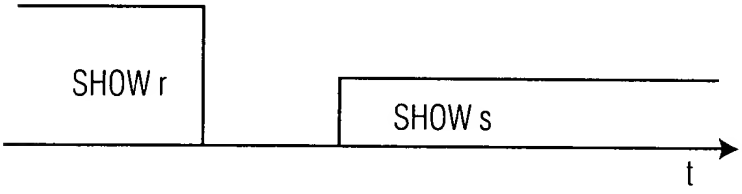


FIG. 9A

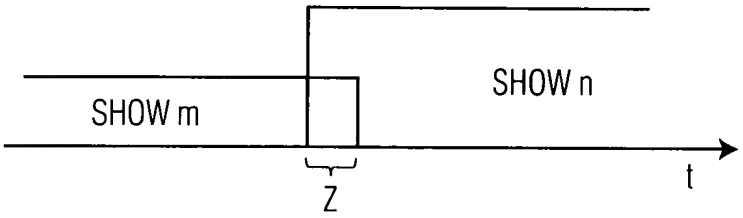


FIG. 9B

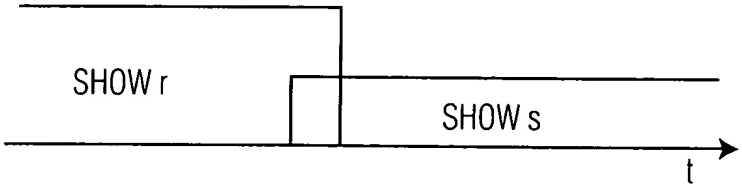


FIG. 10A

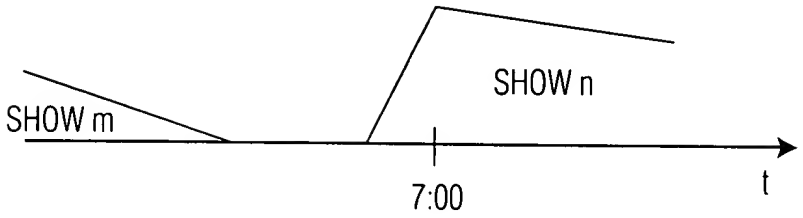


FIG. 10B

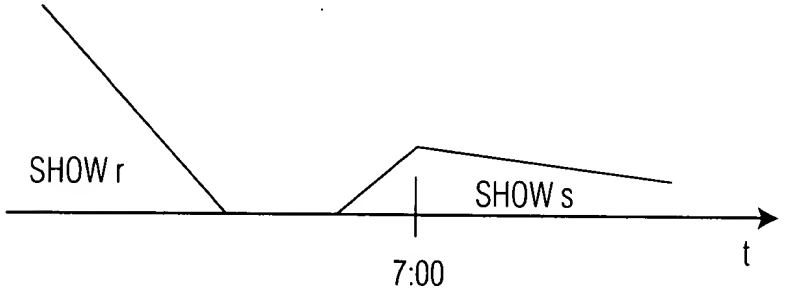


FIG. 11A

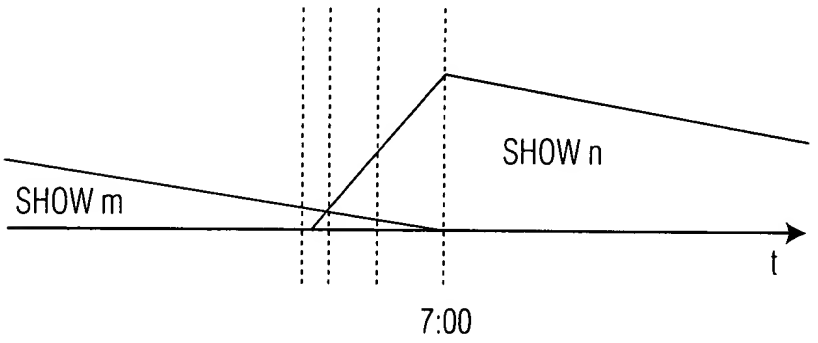
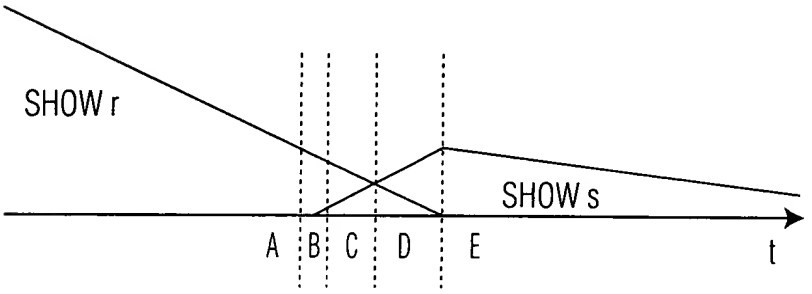


FIG. 11B



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